





GRADE 3 ACHIEVEMENT TEST

Science

June 1991



DO NOT MAKE ANY MARKS ON THIS PAGE

Copyright 1991, the Crown in Right of Alberta, as represented by the Minister of Education, Alberta Education, Student Evaluation Branch, 11160 Jasper Avenue, Edmonton, Alberta, T5K 0L2. All rights reserved. Additional copies may be purchased from the Learning Resources Distributing Centre.

Questions in this test that contain excerpted material may NOT be reproduced without the written permission of the original publisher (see CREDITS page, where applicable). Permission is hereby given to Alberta teachers to reproduce parts of this test that do NOT contain excerpted material for educational purposes and on a nonprofit basis ONLY AFTER THE ADMINISTRATION OF THIS TEST.

UNIVERSITY LIBRARY
UNIVERSITY OF ALBERTA

INSTRUCTIONS

- Read each question carefully.
- Decide which is the correct or best answer.
- Fill in the circle in front of or below the correct answer.
- Use only an HB pencil to fill in the answer circle.
- Fill in only ONE circle for each question.
- If you change an answer, erase your first mark completely.

EXAMPLES

EXAMPLE 1

1. Which one of these foods is NOT a liquid?









The chocolate bar is not a liquid, so the circle below this picture has been filled in completely.

EXAMPLE 2

2. Which one of these is nonliving?









The stuffed bear is nonliving, so the circle in front of this picture has been filled in completely.

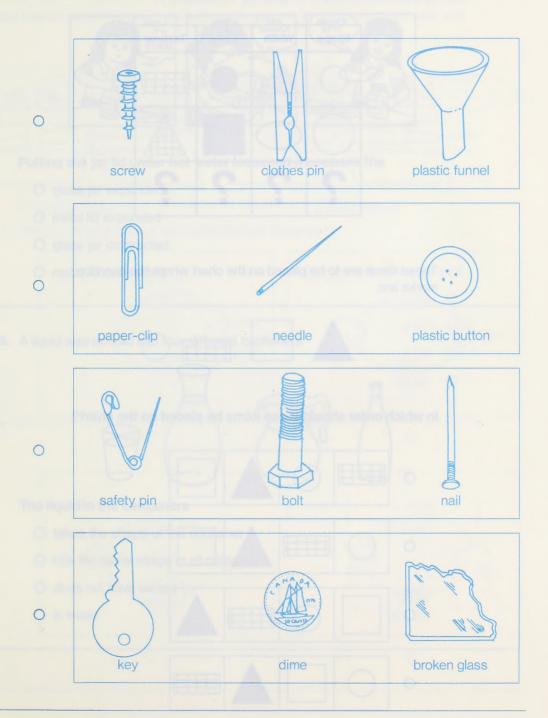
SECTION 1

You have 25 minutes to complete this section.

DO NOT TURN THIS PAGE UNTIL YOUR TEACHER TELLS YOU TO DO SO.

DO NOT MAKE
ANY MARKS
ON THIS PAGE

1. Which box contains objects that can ALL be attracted by a magnet?



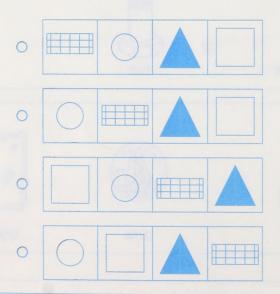
2. This chart groups similar items together.

| Shape | Width | Color | Texture |
|-------|-------|-------|---------|
| | | | |
| | | | |
| ? | ? | ? | ? |

These items are to be placed on the chart where the question marks are.



In which order should these items be placed on the chart?









Putting the jar lid under hot water loosened it because the

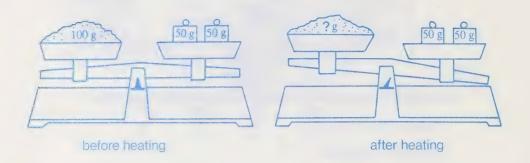
- O glass jar expanded
- O metal lid expanded
- O glass jar contracted
- O metal lid contracted
- 4. A liquid was poured into four different containers.



The liquid in the containers

- O takes the shape of the container
- O has the same shape in all containers
- O does not have weight
- O is water

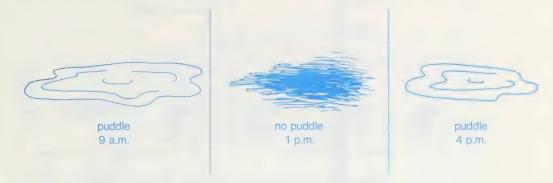
Janet measured 100 g of moist soil.
 Next she heated the soil in an oven for 15 minutes.
 She saw that the position of the pan changed when she weighed the heated soil.



After heating, the soil weighed about

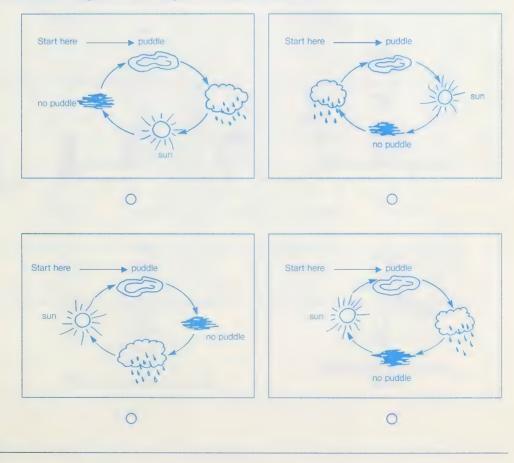
- O 120 g
- O 110 g
- O 90 g
- O 10 g

6. Monica drew a picture of the playground at different times of the same day.

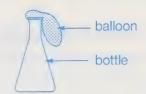


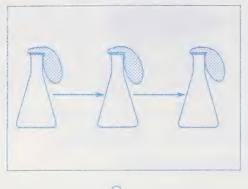
Then she drew a cycle to show what happened to the puddle.

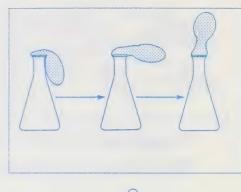
Which drawing shows the cycle Monica observed?

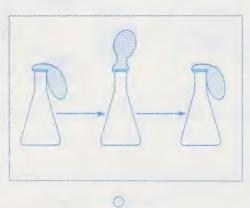


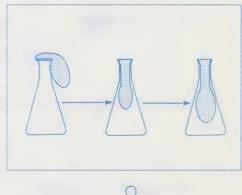
7. If the bottle is heated, what will happen to the balloon?











8. This is the temperature today.



What would be BEST to wear outside today?

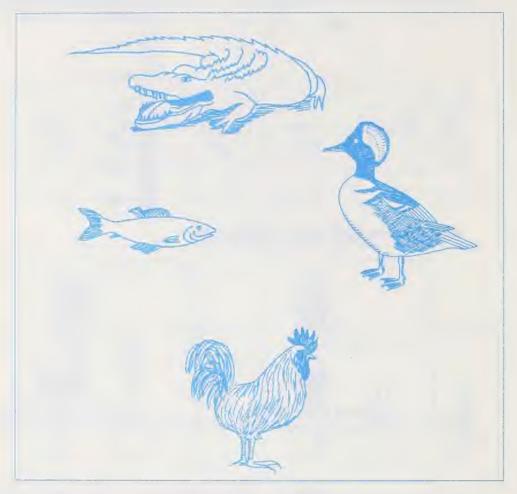




0







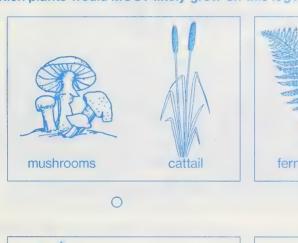
These living things are alike because they all

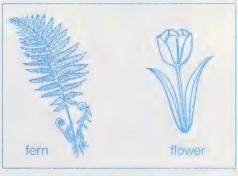
- O live in a pond
- O eat one another
- O hatch from eggs
- O move by using their legs

10. This is a decaying log.

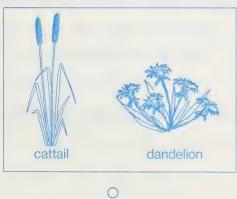


Which plants would MOST likely grow on this log?





0



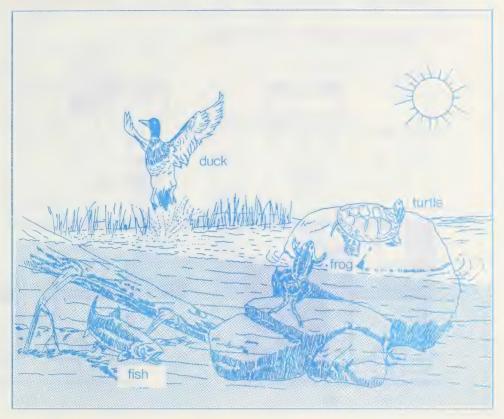


 \bigcirc



If a truckload of oil is spilled into this pond, which living thing will be LEAST affected?

- O People
- O Deer
- O Birds
- O Plants



These animals are alike because they all

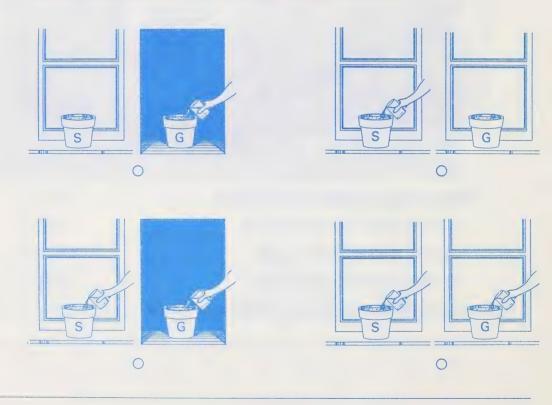
- O live in or near water and have legs
- O live on land and breathe oxygen
- O have a backbone and live on land
- O need energy from the sun and live in or near water

13. Tom predicted that radish seeds grow better in sand than in garden soil.

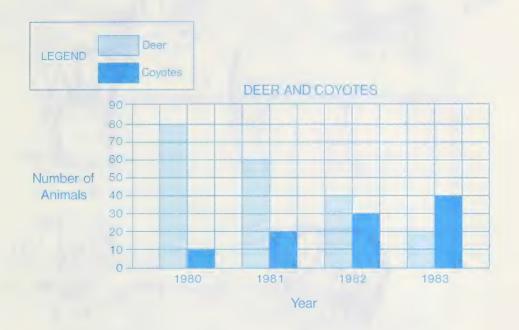
In each pot, he planted six radish seeds.



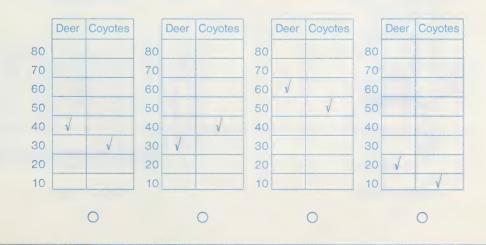
Which picture shows how Tom SHOULD test his prediction?

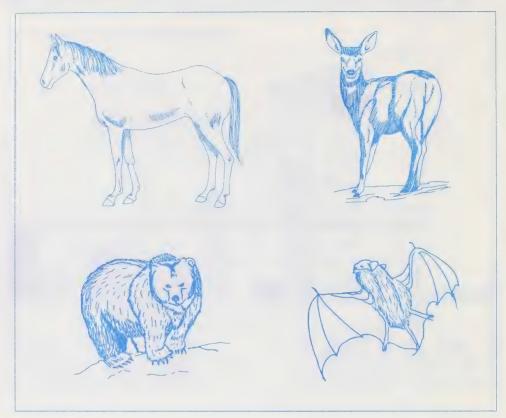


14. The bar graph shows the number of deer and coyotes in a forest.



Which chart shows the number of deer and coyotes in 1982?





These animals all

- O eat meat
- O hibernate
- O have hair
- O run quickly









Which order of pictures would show a car travelling down a hill and then up a hill?

- OBDCA
- OBADC
- OACBD
- OADBC

17. Which change CANNOT happen in reverse?



ice to water





vapor to water



paper to ashes





water to steam

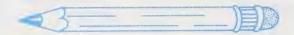




Which senses should be used to estimate the length of these vegetables?

- O Taste and touch
- O Touch and smell
- O Taste and sight
- O Touch and sight

19. Look at this picture.



An OBSERVATION that can be made about this pencil is that it has

- O a pointed end
- O just been sharpened
- O been used for writing
- O a pink eraser on the end

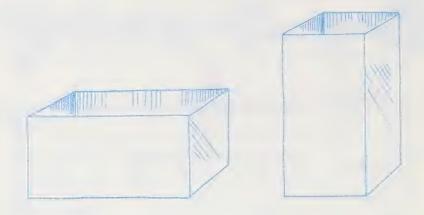
20. Bonnie weighed four objects and then made this chart.

| scissors | 8 | 19 g |
|----------|--|-------------|
| glue | | 24 g |
| ruler | cm 1 2 3 4 5 6 7 8 9 10 | 15 g |
| eraser | (AMELICA AND A STATE OF THE ST | 11 g |

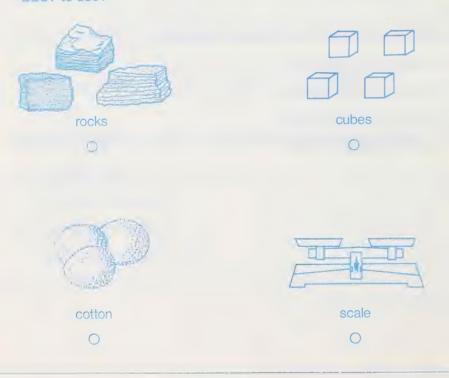
The order of the objects from lightest to heaviest is

- O eraser, glue, scissors, ruler
- O scissors, ruler, eraser, glue
- O eraser, ruler, scissors, glue
- O scissors, glue, ruler, eraser

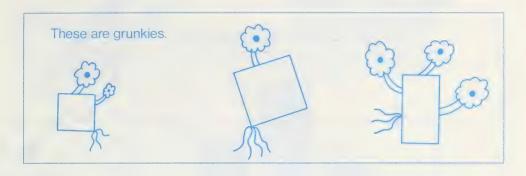
21. These boxes have space inside.

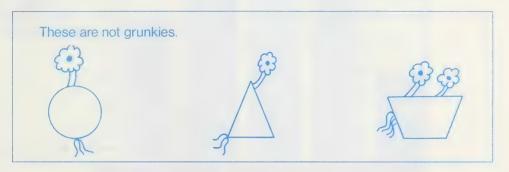


To find out which box has more space inside, which objects would be BEST to use?

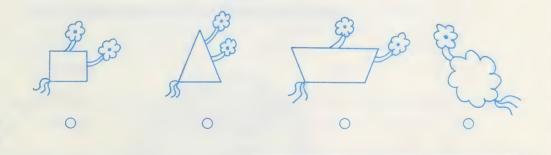


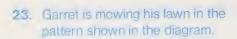
22. Look at these pictures of make-believe plants.





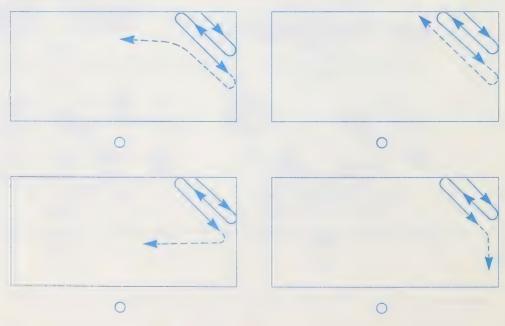
Which one of these is a grunky?



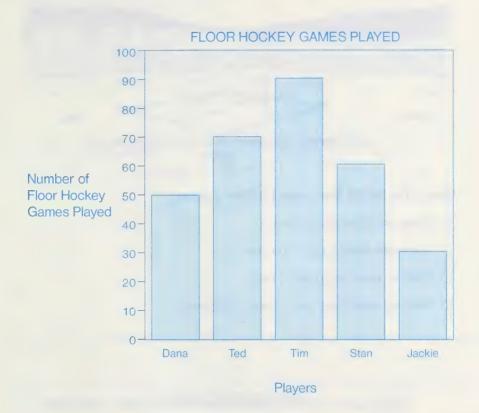




Which diagram shows where he will likely mow next?



24. Five students recorded the number of floor hockey games each of them played in one year.



Which student played 40 more games than Jackie?

- O Ted
- O Dana
- O Tim
- O Stan

25. Some trees in an area were cut down to make room for a baseball diamond.



What is the MOST likely result of this change?

- O There are more shady places.
- O There are fewer birds in the area.
- O Children have less room to play.
- O More squirrels have built homes in the area.

END OF SECTION 1

YOU MAY GO BACK AND CHECK YOUR ANSWERS TO QUESTIONS 1 TO 25 IN SECTION 1.

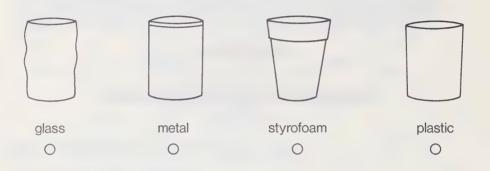


SECTION 2

You have 25 minutes to complete this section.

DO NOT TURN THIS PAGE UNTIL YOUR TEACHER TELLS YOU TO DO SO.

26. Which cup will keep hot water warm the longest?



27. Look at this picture.



Two OBSERVATIONS that can be made about this object are that it

- O is round and soft
- O can bounce and is soft
- O is round and has lines
- O can bounce and has stripes

28. To conserve energy, Jean could

- O turn up the heat in his house
- O leave the refrigerator door open
- O turn off all the lights when he goes to bed
- O leave the television on when he goes out to play
- **29.** Bob measured the volume of each of five bottles. His measurements are shown in the table.

| Bottle | Volume | |
|--------|--------|--|
| А | 14 mL | |
| В | 6 mL | |
| С | 35 mL | |
| D | 12 mL | |
| E | 20 mL | |

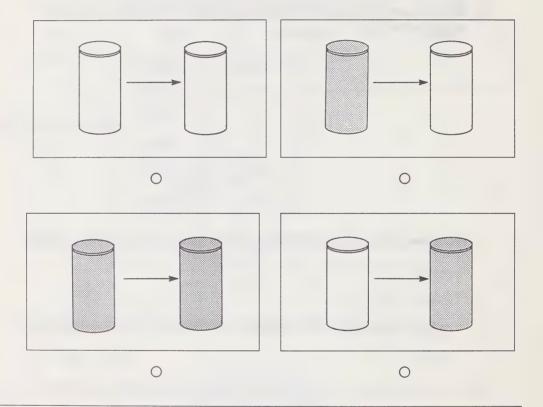
From the table, Bob can tell that bottle D can contain more than bottle

- O A
- ОВ
- O C
- O E

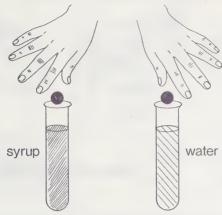
30. Cody drew a diagram using these symbols:



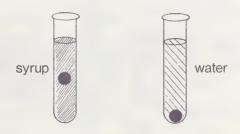
Which diagram shows a liquid that changed into a solid?



31. Anne dropped two of the same kind of beads into two different liquids. She dropped the beads at the same time.



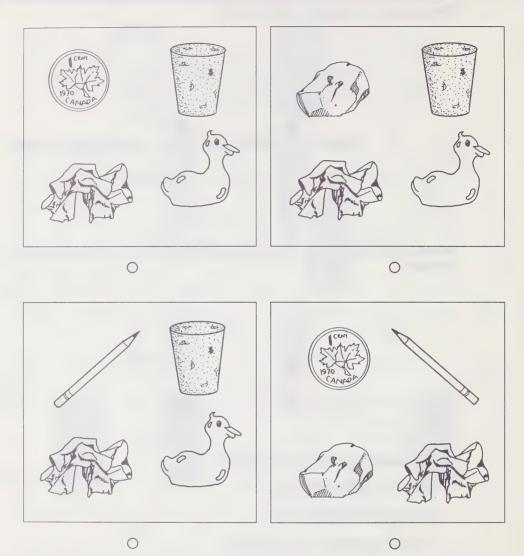
Anne observed that when one bead reached the bottom, the other bead was still falling.



From observing, Anne should say that

- O water is thicker than syrup
- O syrup is thicker than water
- O both beads fall at the same speed
- O beads fall more quickly in syrup than in water

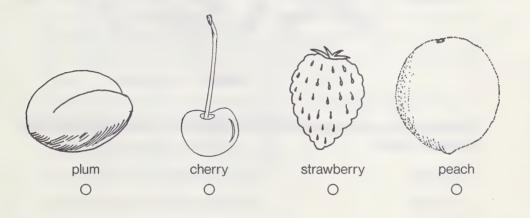
32. Which box contains objects that will ALL float?



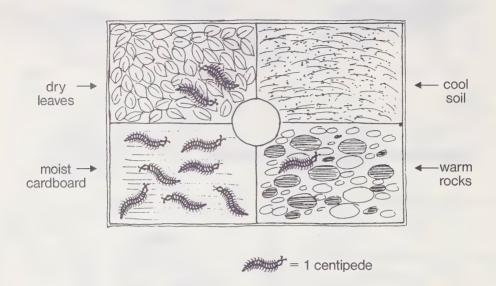
33. These foods contain seeds that are eaten.



Which other food belongs in this group?



34. Roy put 10 centipedes in the centre of a box. Five minutes later, Roy drew a diagram to show where the centipedes had crawled.



From observing, Roy should say that MOST of the centipedes like to stay in places that are

- O moist
- O warm
- O cool
- O dry

35. Look at the chart.

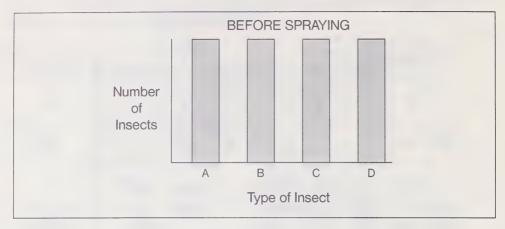
FAVORITE GAMES

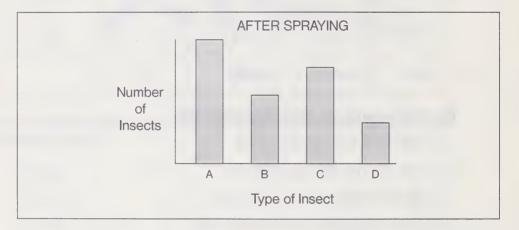
| | Games | | | | | | |
|-------|----------|--------|----------|----------|--|--|--|
| Name | Tag | Hockey | Soccer | Tee Ball | | | |
| Jill | √ | | | √ | | | |
| Tom | | √ | | √ | | | |
| Jeff | √ | | √ | | | | |
| Vicki | | | √ | √ | | | |
| Ryan | | √ | | √ | | | |
| Sue | | √ | √ | | | | |

The information in the chart shows that both

- O Jeff and Sue like tag and soccer
- O Tom and Vicki like tag and tee ball
- O Jill and Sue like hockey and soccer
- O Tom and Ryan like hockey and tee ball

36. Look at these bar graphs.

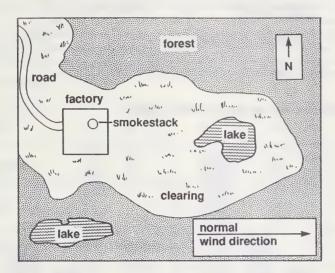




The type of insect that is MOST affected by the spray is

- ОА
- ОВ
- \circ c
- OD

37. A factory was built in the forest about 50 years ago. Recently, a picture of the area was taken from an airplane. The picture looked like this.



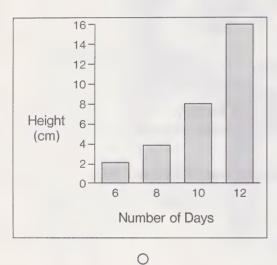
What is the MOST likely cause of the clearing to the east of the factory?

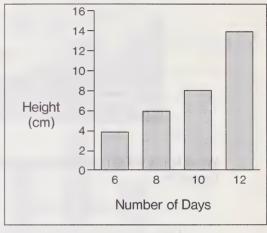
- O Beavers cut down the trees.
- O Trees do not grow around lakes.
- O The factory polluted the lake.
- O Air pollution killed the trees.

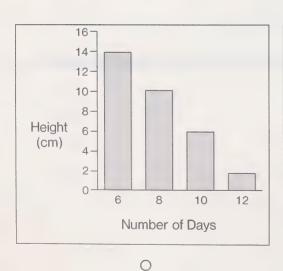
38. Ken grew a plant. He recorded this information.

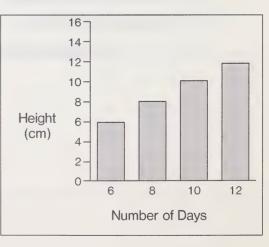
| Number of Days | Height (cm) | | |
|----------------|-------------|--|--|
| 6 | 2 | | |
| 8 | 4 | | |
| 10 | 8 | | |
| 12 | 16 | | |

Which graph shows the growth of Ken's plant?









0

0

39. Look at this chart.

FACTORS THAT DIRECTLY AFFECT LIVING THINGS

| | Living Things | | | | | | |
|----------|----------------|------|----------|-------|----------|--|--|
| Factor | Fruit Flies | Mold | Plants | Frogs | People | | |
| Sunlight | | | V | | √ | | |
| Air | √ | V | V | V | √ | | |
| Water | V | V | V | V | √ | | |
| Soil | | | V | V | √ | | |
| Space | √ | | V | | | | |
| Milk | | | | | √ | | |
| Food | √ | V | V | V | √ | | |

The factors that are common to ALL the living things listed in the chart are

- O air, water, food
- O air, water, space
- O water, soil, space
- O sunlight, soil, food

40. Which group of plants and animals are found in an Alberta forest community?

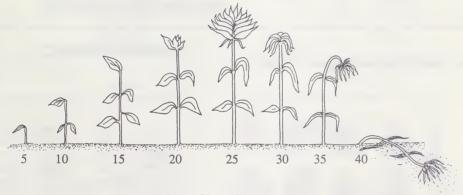


41. Potato peelings, a plastic jar, dead leaves, and a paper plate were buried in a garden.

After a year, which one will have changed the LEAST?

- O Potato peelings
- O Plastic jar
- O Dead leaves
- O Paper plate

42. Ellen drew pictures to show how her plant grew.



Days Since Planting

At 30 days, the plant began to

- O die
- O form leaves
- O grow taller
- O grow a flower

43. Look at these pictures.



What will come NEXT in the pattern?



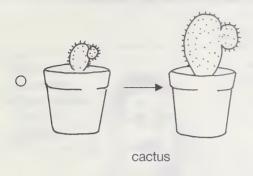
44. Look at the two groups of objects.

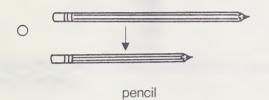


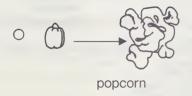
What rule was used to group the objects?

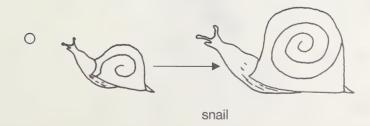
- O Circles in group A, triangles in group B
- O Three sides in group A, no sides in group B
- O Straight sides in group A, curved sides in group B
- O Striped shapes in group A, dotted shapes in group B

45. Which object changes in shape, size, and texture?





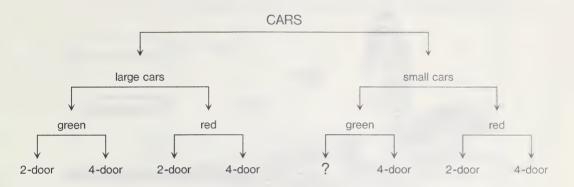




46. Which person will get exactly the length of material wanted?



47. Look at this chart.



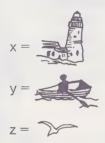
Where the question mark is in the chart, a car would be described as a

- O 4-door small red car
- O 4-door large red car
- O 2-door small green car
- O 2-door large green car

48. Look at Jhoti's picture.



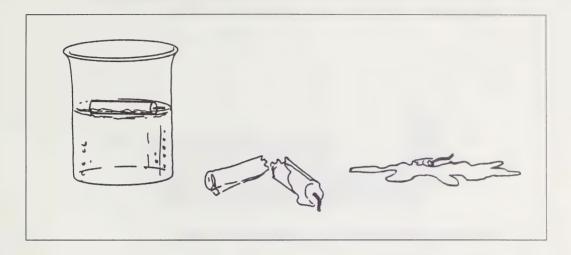
Jhoti wrote a secret code to describe her picture from left to right. These are the letters she used:



Her secret code was

- O x, z, z, z, y
- O y, z, z, z, x
- O y, z, z, x, z
- O x, z, y, z, z

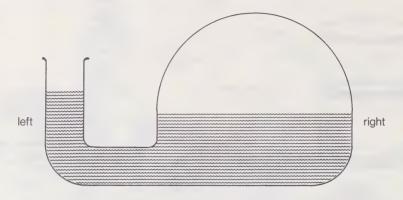
49. Look at these pictures of a candle.



The pictures show that the candle

- O sank in the water, broke, and that all of the parts melted
- O floated in the water, bent, and that all of the parts melted
- O floated in the water, bent, and that some of the parts melted
- O floated in the water, broke, and that some of the parts melted

50. Suppose a container looks like this. Linda wants to fill it with water, but when she tries to, the water stops going into the container.



What could Linda do to fill the container with water?

- O Raise the left side
- O Lower the left side
- O Add more water

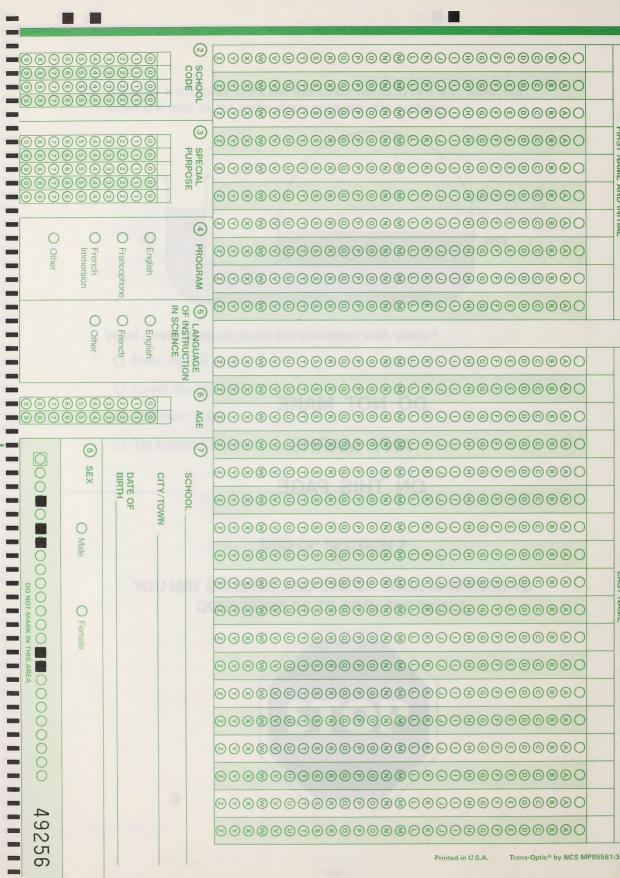
O Tip it upside down

END OF SECTION 2

YOU MAY GO BACK AND CHECK YOUR ANSWERS TO QUESTIONS 26 TO 50 IN SECTION 2.



DO NOT MAKE
ANY MARKS
ON THIS PAGE



TIME U 0 1332

LB 3054 C2 0332 1991 GRADE 3 ACHIEVEMENT TEST SCIENCE JUNE 1991 --

NL 40166926 CURR HIST

000039067178

